



CURRICULUM VITAE

Walt Ream

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Degrees:

University of California, Berkeley, PhD, Molecular Biology, 1980
Vanderbilt University, BA cum laude, Molecular Biology, 1975

Positions:

1993-present	Director, Genetics Program; Co-Director 1993-1998
2000-present	Professor, Department of Microbiology, OSU
1997-2000	Associate Professor, Microbiology, OSU
1988-1997	Associate Professor, Agricultural Chemistry, OSU
1983-1988	Assistant Professor, Biology, Indiana University
1980-1983	American Cancer Society Postdoctoral Fellow, Microbiology, University of Washington; Mentor: Dr. Eugene W. Nester
1975-1980	Ph.D. Student & Regents Fellow, Molecular Biology, University of California, Berkeley; Mentor: Dr. Alvin J. Clark
1975	Summer Intern, Genetics, Universitat Koln; Mentor: Peter Starlinger
1974-1975	Student Research, Molecular Biol., Vanderbilt U.; Mentor: Dr. Gisela Mosig

Patent Pending: Production of crown gall resistant plants.

Papers in Preparation & Submitted:

Lee, H., Pitrak, J., Mok, M., Parks, T.D., Whistler, C. and W. Ream. Silencing of *Agrobacterium tumefaciens* T-DNA oncogenes. In preparation for Transgenic Research.

Shanks, O.C., Kornfeld, M., Hodges, L. and W. Ream. DNA and protein recovery from washed stone tools: a blind test. In preparation.

Shanks, O.C., Hodges, L., Tilley, L., Leonard, J., Kornfeld, M., Larson, M.L., Wayne, R., and W. Ream. DNA from ancient stone



tools and bones excavated at Bugas-Holding, Wyoming. In preparation for J. Archaeol. Sci.

Viss, W., Pitrak, J., Humann, J.L., Cook, M., Driver, J. and W. Ream. Crown-gall-resistant transgenic apple trees that silence *Agrobacterium tumefaciens* oncogenes. Submitted to Molecular Breeding, August, 2002; currently under revision.

Journal Publications:

Gu, Q.P., Ream, W. and P.D. Whanger. Selenoprotein W gene regulation by selenium in L8 cells. *BioMetals*, 15: 411-420 (2002).

Shanks, O., Vella, A.T., Bonnichsen, R. and W. Ream. Recovery of protein and DNA trapped in stone tool microcracks. *J. Archaeological Science*, 28: 965-972 (2001).

Bonnichsen, R., Hodges, L., Ream, W., Kirner, D.L., Selsor, K., Taylor, R.E. and K.G. Field. Radiocarbon dates and gene sequences from individual ancient hairs. *J. Archaeological Science* 28: 777-787 (2001).

Hamilton, C.M., Lee, H., Li, P.L., Cook, D.M., Piper, K.R., Beck von Bodman, S., Lanka, E., Ream, W. and S.K. Farrand. TraG and its homologs from pTiC58 and RP4 confer relaxosome specificity to the Ti plasmid conjugal transfer system. *J. Bacteriol.* 182: 1541-1548 (2000).

Gu, Q.P., Sun, Y., Ream, W. and P.D. Whanger. Selenoprotein W accumulates primarily in primate skeletal muscle, heart, brain and tongue. *Molec. Cellular Biochem.* 204: 49-56 (2000).

Sundberg, C.D. and W. Ream. *Agrobacterium tumefaciens* chaperone-like protein, VirE1, interacts with VirE2 at domains required for single-stranded DNA binding and cooperativity. *J. Bacteriol.* 181: 6850-6855 (1999).

Gu, Q.P., Beilstein, M.A., Barofsky, E., Ream, W. and P.D. Whanger. Purification, characterization and glutathione binding to selenoprotein W from monkey muscle. *Arch. Biochem. Biophys.* 361: 25-33 (1999).

Whistler, C.A., Corbell, N., Sarniquet, A., Ream, W. and J.E. Loper. The two-component regulators GacS and GacA influence accumulation of the stationary-phase sigma factor and stress response in *Pseudomonas fluorescens* Pf-5. *J. Bacteriol.* 180: 6635-6641 (1998).

Mysore, K.S., Bassuner, B., Deng, X., Darbinian, N.S., Motchoulski, A., Ream, W. and S.B. Gelvin. Role of the *Agrobacterium tumefaciens* VirD2 protein in T-DNA transfer and integration. *Mol. Plant-Microbe Interactions* 11: 668-683 (1998).

Dombek, P.D. and W. Ream. Functional domains of *Agrobacterium tumefaciens* single-stranded DNA-binding protein VirE2. *J. Bacteriol.* 179: 1165-1173 (1997).

Gu, Q., Beilstein, M.A., Vendeland, S.C., Lugade, A., Ream, L.W. and P.D. Whanger. SECIS elements in selenoprotein W cDNAs from skeletal muscle of human, rhesus monkey, rat, mouse, and sheep direct incorporation of selenocysteine at a TGA codon. *Gene* 193: 187-196 (1997).

Whanger, P.D., Vendeland, S.C., Gu, Q.-P., Beilstein, M.A. and L.W. Ream. Selenoprotein W cDNA from five species of animals. *Biomed. Environ. Sci.* 10: 190-197 (1997).

Sundberg, C., Meek, L., Carroll, K., Das, A., and W. Ream. VirE1 protein mediates export of the single-stranded DNA-binding protein VirE2 from *Agrobacterium tumefaciens* into plant cells. *J. Bacteriol.* 178: 1207-1212 (1996).

Haas, J.H., Moore, L.W., Ream, W., and S. Manulis. Universal PCR primers for detection of pathogenic *Agrobacterium* species. *Appl. Environ. Microbiol.* 61: 2879-2884 (1995).

Vendeland, S.C., Beilstein, M.A., Yeh, J.-Y., Ream, W., and P.D. Whanger. Rat skeletal muscle selenoprotein W: cDNA clone and mRNA modulation by dietary selenium. *Proc. Natl. Acad. Sci. USA* 92: 8749-8753 (1995).

Keim-Miller, C.A., Ream, W., and D.W. Mosbaugh. DNA helicase activity detected in situ following polyacrylamide gel electrophoresis. *Meth. Molec. Cell. Biol.* 3: 259-269 (1993).

Shurvinton, C.E., Hodges, L., and W. Ream. A nuclear localization signal and the C-terminal omega sequence in the *Agrobacterium tumefaciens* VirD2 endonuclease are important for tumor formation. *Proc. Natl. Acad. Sci. USA* 89: 11837-11841 (1992).

Miranda, A., Janssen, G., Hodges, L., Peralta, E.G., and W. Ream. *Agrobacterium tumefaciens* transfers extremely long T-DNAs by a unidirectional mechanism. *J. Bacteriol.* 174: 2288-2297 (1992).

Shurvinton, C. E. and W. Ream. Stimulation of *Agrobacterium tumefaciens* T-DNA transfer by overdrive depends on a flanking

sequence but not on helical position with respect to the border repeat. J. Bacteriol. 173: 5558-5563 (1991).

Veluthambi, K., Ream, W. and S. B. Gelvin. Virulence genes, borders, and overdrive generate single-stranded T-DNA molecules from the A6 Ti plasmid of *Agrobacterium tumefaciens*. J. Bacteriol. 170: 1523-1532 (1988).

Peralta, E. G., Hellmiss, R. and W. Ream. *overdrive*, a T-DNA transmission enhancer on the *A. tumefaciens* tumour-inducing plasmid. EMBO J. 5: 1137-1142 (1986).

Peralta, E. G. and L. W. Ream. T-DNA border sequences required for crown gall tumorigenesis. Proc. Natl. Acad. Sci. USA 82: 5112-5116 (1985).

Blancar, M. A., S. J. Sandler, M. E. Armengod, L. W. Ream, and A. J. Clark. Molecular analysis of the *recF* gene of *Escherichia coli*. Proc. Natl. Acad. Sci. USA 81: 4622-4626 (1984).

Ream, L. W., M. P. Gordon, and E. W. Nester. Multiple mutations in the T-region of the *Agrobacterium tumefaciens* tumor-inducing plasmid. Proc. Natl. Acad. Sci. USA 80: 1660-1664 (1983).

Ream, L. W. and A. J. Clark. Cloning and deletion mapping of the *recF dnaN* region of the *E. coli* chromosome. Plasmid 10: 101-110 (1983).

Garfinkel, D. J., R. B. Simpson, L. W. Ream, F. F. White, M. P. Gordon, and E. W. Nester. Genetic analysis of crown gall: fine structure map of the T-DNA by site-directed mutagenesis. Cell 27: 143-153 (1981).

Ream, L. W., L. Margossian, A. J. Clark, F. G. Hansen, and K. von Meyenburg. Genetic and physical mapping of *recF* in *Escherichia coli* K-12. Molec. Gen. Genet. 180: 115-121 (1980).

Review Articles:

Bissonette, L., O. Shanks and W. Ream. Sequence powertools: Lasergene 5.0 by DNA Star. Science 293: 129 (2001).

Shanks, O., Bissonette, L., and W. Ream. Pretty Plamids: A new plasmid drawing program for PC users - Textco Gene Construction Kit 2. Science 289: 413 (2000).

Ream, W. Import of *Agrobacterium tumefaciens* virulence proteins and transferred DNA into plant cell nuclei. In: Subcellular Biochemistry, Vol. 29, B.B. Biswas & H.K. Das, eds. Pages 365-384. Plenum, (1998).

Ream, W. *Agrobacterium tumefaciens* and Interkingdom Genetic Exchange. Annual Review of Phytopathology 27: 583-618 (1989).

Ream, L. W. and M. P. Gordon. Crown gall disease and prospects for genetic manipulation of plants. Science 218: 854-858 (1982).

Textbooks:

Ream, W., B. Geller, J. Trempy and K. Field. Molecular Genetics Laboratory: A Writing Intensive Course. Academic Press (2003).

Ream, W. and K.G. Field. Molecular Biology Techniques: An Intensive Laboratory Course. Academic Press (1998).

Textbook Chapters:

Ream, W. *Agrobacterium* genetics. In: Modern Microbial Genetics, second edition, U. N. Streips and R. E. Yasbin, eds. Wiley & Sons (2002).

Ream, W. Essentials of *Agrobacterium* genetics. In: Modern Microbial Genetics, U. N. Streips and R. E. Yasbin, eds. Wiley-Liss (1991).

Book Edited:

Crown Gall, W. Ream and S.B. Gelvin, eds., American Phytopathological Society, St. Paul, Minnesota (1996).

Book Articles:

Ream, W., Vorachek, W., and P.D. Whanger. Selenoprotein W: A muscle protein in search of a function. Chapter 12, pp. 137-146. In: Selenium: Its molecular biology and role in human health, D.L. Hatfield, ed., Kluwer, 2001.

Sundberg, C., Meek, L., Carroll, K., Dombek, P., Das, A., and W. Ream. VirE1 protein mediates export of the single-stranded DNA-binding protein VirE2 from *Agrobacterium tumefaciens* into plant cells. In: Crown Gall, W. Ream and S.B. Gelvin, eds., American Phytopathol. Society, St. Paul, MN, pp. 126-145 (1996).

Narasimhulu, S.B., Nam, J., Deng, X., Sarria, R., Ream, W., and S.B. Gelvin. *Agrobacterium* and plant genes affecting T-DNA transfer and integration. In: Crown Gall, W. Ream and S.B. Gelvin, eds., American Phytopathological Society, St. Paul, Minnesota, pp. 99-125 (1996).

Hodges, L. Shurvinton, C.E., and W. Ream. A nuclear localization signal in the *Agrobacterium tumefaciens* VirD2 border endonuclease is essential for crown gall tumorigenesis. In: Biotechnology and Plant Protection, D.D. Bills and S.D. Kung, eds., World Scientific Press, London, p. 107-118 (1994).

Ji, J. M., Martinez, A., Dabrowski, M., Veluthambi, K., Gelvin, S. B. and W. Ream. The *overdrive* enhancer sequence stimulates production of T-strands from the *Agrobacterium tumefaciens* tumor-inducing plasmid. In: Molecular Biology of Plant-Pathogen Interactions, UCLA Symposia on Molecular and Cellular Biology, New Series, Volume 101, Editors, B. Staskawicz, P. Ahlquist & O. Yoder, Alan R. Liss, Inc., New York, NY, (1988).

Ji, J. M., Veluthambi, K., Gelvin, S. B. and W. Ream. The *A. tumefaciens* T-DNA transmission enhancer, *overdrive*, stimulates T-strand accumulation. In: Physiology and Biochemistry of Plant-Microbial Interactions; Proceedings of the 11th Annual Symposium in Plant Physiology, T. Kosuge and L. Walling, eds., American Society of Plant Physiologists, pp. 11-18 (1988).

Peralta, E. G., Hellmiss, R., Ji, J. M., Berger, W. H. and W. Ream. *overdrive*, a T-DNA transmission enhancer on the *A. tumefaciens* tumor-inducing plasmid. In: Proceedings of the Third International Symposium on the Molecular Genetics of Plant-Microbe Interactions, D. P. Verma, ed., Martinus Nijhoff Publishers (1986).

Peralta, E. G., R. Hellmiss, and W. Ream. *overdrive*, a T-DNA transmission enhancer on the *A. tumefaciens* tumor-inducing plasmid. In: Molecular Strategies for Crop Protection, UCLA Symposia on Molecular and Cellular Biology, New Series, Volume 48; Editors, Charles Arntzen and Clarence Ryan; Alan R. Liss, Inc., New York, NY, pages 145-156 (1986).

Peralta, E. G. and L. W. Ream. T-DNA border sequences required for crown gall tumorigenesis. In: Proceedings of the 6th International Conference on Plant Pathogenic Bacteria, Martinus Nijhoff/Dr. W. Junk Publishers, The Hague (1985).

Peralta, E. G. and L. W. Ream. Sequences signaling T-DNA ends on the *Agrobacterium tumefaciens* tumor-inducing plasmid. In: advances in the Molecular Genetics of the Bacteria-Plant Interaction, A. A. Szalay and R. P. Legocki (eds.), Cornell Univ. Publishers, Ithaca, NY, pages 124-130 (1985).

Gordon, M. P. et al. Current developments in the transformation of plants. In: Advances in Gene Technology; Molecular Genetics of Plants and Animals, Academic Press, pages 34-46 (1983).

Gordon, M. P. et al. Crown gall--nature's genetic engineer. In: From Gene to Protein: Translation into Biotechnology, Academic Press, pp.105-125 (1982).

Ream, L., N. Crisona and A. J. Clark. ColE1 plasmid stability in ExoI- ExoV- strains of *Escherichia coli* K-12. In: Microbiology, D. Schlessinger (ed.), American Society for Microbiology, pages 78-80 (1978).

Recent Abstracts:

Shanks, O., Kornfeld, M. and W. Ream. Recovery of protein and DNA trapped in stone tool microcracks. Society for American Archaeology, 65th Annual Meeting, Philadelphia, 2000. Abstract page 298.

Shanks, O., Hodges, L., Bonnichsen, R., Kornfeld, M., Vella, A.T. and W. Ream. Recovery of biomolecules from stone tools. 5th International Ancient DNA Conference, Manchester, UK, 2000.

Vorachek, W.R., Bauman, A.B., Ream, W. and P.D. Whanger. The selenoprotein W gene encodes a protein abundant in muscle and brain. Selenium 2000 Conference, Venice, Italy.

Bauman, A.B., Vorachek, W.R., Ream, W. and P.D. Whanger. Characterization of the selenoprotein W promoter. FASEB J. 14: A513, 361.8 (2000)

Vorachek, W.R., Bauman, A.B., Baetscher, M., Ream, W. and P.D. Whanger. Production of selenoprotein W knockout mice. FASEB J. 14: A513, 361.9 (2000)

Ream W., Shanks, O. and R. Bonnichsen. Ancient DNA from overlooked sources: stone tools and hair. Presented at: Clovis and Beyond, Santa Fe, October 28-31, 1999.

Lee, H., Mok, M., Parks, T.D. and W. Ream. Silencing of *Agrobacterium tumefaciens* T-DNA oncogenes by cosuppression. 19th Crown Gall Conference, November 7-8, 1998.

Sundberg, C.D., Hodges, L., Lee, H. and W. Ream. *Agrobacterium tumefaciens* chaperone-like protein VirE1 interacts with the single-stranded DNA-binding domain of VirE2 protein. 19th Crown Gall Conference, November 7-8, 1998.

Sundberg, C., Meek, L., Carroll, K. and W. Ream. VirE1 protein mediates export of single-stranded DNA-binding protein VirE2 from

Agrobacterium tumefaciens into plant cells. Presented at: 17th Crown Gall Conference, 1996.

Whanger, P.D., Gu, Q.P. and L.W. Ream. Distribution of selenoprotein W in primate tissues. Presented at: 1997 FASEB meeting.

Whanger, P.D., Vendeland, S.C., Gu, Q., Beilstein, M.A. and L.W. Ream. Selenoprotein W cDNAs from five species of animals. Presented at: Sixth International Symposium on Selenium in Biology and Medicine, 1996.

Whanger, P.D., Beilstein, M.A., Vendeland, S.C. and L.W. Ream. Sequence of the rat selenoprotein W gene. Presented at: 1996 FASEB meeting.

Beilstein, M.A., Vendeland, S.C., Ream, W., and P.D. Whanger. Features of cDNA and gene for rat selenoprotein W. Presented at: 1995 FASEB meeting.

Vendeland, S.C., Yeh, J.Y., Mohd, A., Ream, L.W. and P.D. Whanger. Tissue distribution and effect of selenium deficiency on rat selenoprotein W mRNA levels. Presented at: 1995 FASEB meeting.

Haas, J.H., Moore, L.W., and W. Ream. Use of two PCR primer pairs to detect virulent *Agrobacteria*. Presented at: 15th Congress of the Israeli Phytopathological Society, January 31-February 1, 1994.

Bonnichsen, R. Field, K., Ream, W., Taylor, E., and K. Rendich. New techniques for recovering and analyzing ancient human and animal hair. Presented at: Canadian Archaeological Association, 27th Annual Meeting, May, 1994.

Lu, S., Canfield, M., Haas, J.H., Manulis, S., Ream, W., and L.W. Moore. Use of sensitive nonradioactive methods to detect *Agrobacterium tumefaciens* in crown gall tumors of naturally infected woody plants. Presented at: 6th International Congress of Plant Pathology, July, 1993.

Current Grants:

USDA: Production of crown gall resistant plants: SBIR Phase II; 2002-4; \$300,000 = 125,000 (OSU) + 175,000 (Dry Creek Lab)

USDA: Silencing Agrobacterium tumefaciens oncogenes; 2001-2004; \$270,000

NIH: What is the metabolic function of Selenoprotein W? 1999-2004; \$1,284,606; P. D. Whanger, PI; W. Ream Co-PI

OSU Ag. Research Foundation: Production of crown gall resistant plants; 2001-2003; \$7,500

OSU Research Equipment Reserves Fund: Gradient Temperature Cycler for ancient DNA Research; 2002; \$4,917

Expired Grants:

- NSF: Protein & DNA from ancient bones and stone tool residues; 2000-2002; \$200,000
- NSF: Research Experiences for Undergraduates Program; Protein & DNA from Ancient Bones and Stone Tools; 2002; \$4,000
- Monsanto: Patent costs for: Production of plants resistant to crown gall; 1998-2002; \$25,000
- USDA: Production of crown gall resistant plants: SBIR Phase I; 2001; \$75,000; \$21,000 to OSU + \$54,000 to Dry Creek Lab
- Jean & Ray Auel Gift: Molecular archaeology: analysis of ancient organic remains from four upper paleolithic cave sites in southern France; 1999-2002; \$100,000; R. Bonnicksen & J. Clottes, PIs; W. Ream, Co-PI.
- OSU Writing Intensive Course Program: Development of a microbiology writing guide; 2001; \$2,105; L. Bruisland, PI; W. Ream & M. Burke, co-PIs.
- OSU: Deans of Agriculture & Reseach + Dept. of Microbiology; Emergency funds to replace an ultracold freezer; 2001; \$6,000
- Bartels & Stout: Microscopes for molecular biology & archaeology. 2000; \$60,000; T. Dreher, W. Ream & G. Rohrmann, Co-PIs.
- MJ Research: Molecular analysis of ancient DNA; 1998; \$12,000
- USDA: A multifunctional DNA-binding protein required for gene transfer to plants; 1998-2000; \$170,000
- Bingham Trust: Molecular archeology: the initial peopling of the Americas; 1996-2000; \$500,000; R. Bonnicksen & W. Ream
- Tartar Foundation: Research Fellowship to Walt Ream; 1999-2000; \$2,000
- OSU Agricultural Research Foundation: Resistance to crown gall by suppression of *Agrobacterium tumefaciens* tumor-inducing genes; 1998-2000; \$7,500
- USDA: A multifunctional DNA-binding protein required for gene transfer to plants; 1996-1998; \$110,000
- USDA: Resistance to crown gall by co-suppression of

Agrobacterium tumefaciens oncogenes; 1996-1998; \$20,000;
W. Ream, PI; M. Mok, Co-PI

M.J. Murdock Charitable Trust: Molecular analysis of ancient DNA
from hair samples recovered from archeological sites;
1996-1997; \$47,754; K.G. Field, PI; W. Ream & R.
Bonnichsen, Co-PIs

USDA: Northwest Crown Gall Meeting; 1996-1997; \$2,500; W. Ream

OSU EHSC Pilot Project Grant: Glutathione-S-transferase genes in
soil bacteria; 1995-1996; \$24,800; J.A. Field, PI; W.
Ream, Co-PI

OSU Research Foundation: Molecular analysis of ancient DNA from
Pleistocene human hair; 1994-1996; \$6,000; K. Field,
W. Ream & R. Bonnichsen, Co-PIs

USDA: Multifunctional DNA binding protein required for gene
transfer to plants; 1993-1996; \$120,000

OSU Agricultural Research Foundation: Targeted transfer of
foreign genes into crop plants; 1993-1995; \$4,000

Medical Research Foundation of Oregon: Nuclear localization of
oncogenes during tumorigenesis; 1993-1993; \$12,640

OSU Research Foundation: Roles of VirD2 protein in crown gall
tumorigenesis; 1990-1991; \$7,000

Charles A. Lindbergh Foundation: Genetic engineering of poplar;
1990-1991; \$10,580

OSU Center for Gene Research: genetic engineering of poplar;
1990-1991; \$10,000; S. Strauss, Co-PI

NIH: Research Career Development Award; 1987-1992; \$275,725

American Cancer Society: Junior Faculty Research Award; 1987-
1990; \$238,500; Terminated in favor of NIH RCDA.

NIH: T-DNA transmission during crown gall tumorigenesis; 1987-
1991; \$269,240 (direct costs)

USDA: Inducible virus resistance genes; 1984-1987; \$110,000

NSF: T-DNA integration during crown gall tumorigenesis; 1984-
1987; \$254,000

Indiana U. Biomedical Research: T-DNA integration during crown
gall tumorigenesis; 1983-1984; \$3,500

Awards:

Finalist, Fred H. Horne Award for Excellence in Teaching (2000)

Victor C. Brookes Standard of Commitment Award, OSU Faculty/Staff Fitness Program (2000)

Tartar Research Fellowship (2000)

Certificate of Appreciation from The American Phytopathological Society for outstanding services as Associate Editor for Molecular Plant Microbe Interactions (1998)

Biography included in Who's Who Among America's Teachers; teachers must be nominated by their students. (1997)

American Cancer Society Certificate of Appreciation for outstanding service to the Scientific Advisory Committee. (1995)

National Institutes of Health Research Career Development Award (1987)

American Cancer Society Junior Faculty Research Award (1987)

American Cancer Society Postdoctoral Fellowship (1981)

University of California Regents Fellowship (1977)

Awards to Trainees:

HHMI: Howard Hughes Medical Institute Undergraduate Summer Fellowship to Rachel Hasson; Mutagenesis of *Agrobacterium tumefaciens virE1* gene; summer, 2001; \$1,500.

NSF: Research Experiences for Undergraduates Program; Fellowship to Lucas Tilley; Protein & DNA from Ancient Bones and Stone Tools; 2002; \$4,000

HHMI: Howard Hughes Medical Institute Undergraduate Summer Fellowship to Sami Murakami; Silencing *Agrobacterium* oncogenes; summer, 2001; \$3,146.

Oregon Laurels Graduate Fellowship to Laurie Bissonette, 2001-02; \$6,228

Oregon Sports Lottery Fellowship to Laurie Bissonette, 2001-02; \$4,800

Genetics Program: Graduate Fellowship to Jennifer Pitrak, 2001-

2002; \$17,000

Tartar Foundation: Research Fellowship to Jodi Humann; 2000-01;
\$2,000

Tartar Foundation: Research Fellowship to Jennifer Pitrak;
2000-01; \$2,000

OSU Graduate Student Symposium, third place award to J. Pitrak;
2001

NSF Grade K-12 Graduate Teaching Fellowship to Jennifer Pitrak;
2000; \$18,000

Excellence in Undergraduate Research Award to Sarah Andrews; The
Northwest Undergraduate Science Research Conference,
Oregon Health Sciences University; 2000

HHMI: Howard Hughes Medical Institute Undergraduate Summer
Fellowship to Julie Law; Silencing *Agrobacterium*
oncogenes; summer, 2000; \$3,146.

Tartar Foundation: Research Fellowship to Laurie Bissonette;
1999-2000; \$2,000

HHMI: Howard Hughes Medical Institute Undergraduate Summer
Fellowship to Sarah Andrews; Silencing *Agrobacterium*
oncogenes; summer, 1999; \$3,146.

Phi Kappa Phi: National Graduate Fellowship to Laurie
Bissonette; 1999; \$7,000

OSU Graduate School: University Fellowship to Laurie Bissonette;
1999; \$1,500

Genetics Program Graduate Fellowship to Orin Shanks; 1997-99;
\$30,000

USDA National Needs Fellowship to Chris Sundberg; 1995-1999;
\$45,000

National Semifinalist Award to Craig Hetherington; 1998;
Intel High School Science Talent Search

Outstanding Undergraduate National Research Award to Loc Trieu;
Minorities in Agriculture, Natural Resources and Related
Sciences; 1995

Professional Service:

Scientific Advisor, Consortium for Plant Biotechnology Research
(1990-present)

Technical Review Panel, The Lindbergh Foundation (2001)

Scientific Advisory Panel Member, American Cancer Society
(1991-96)

Editorial board, Molecular Plant Microbe Interactions (1996-1998)

Editor, Plant Molecular Biology (1984-1994)

Organized Northwest Crown Gall Conference at Friday Harbor
Laboratory (1995)

Organizing Committee for 6th International Symposium on Plant-
Microbe Interactions

Hosted Midwest Crown Gall Meeting (1987)

Review grants for: NSF, USDA, DOE, NIH, American Cancer Society,
NSERC-Canada, Lindbergh Foundation, Corp. Plant Biotech. Res.

Review papers for: Journal of Bacteriology, Plant Molecular
Biology, PNAS, Science, Molecular & General Genetics,
Microbiological Reviews, Molecular Plant-Microbe Interactions,
Biochemistry, Journal of Biological Chemistry, Plasmid, Gene,
Plant Physiology, Journal of American Horticulture Society

Society Memberships:

Genetics Society of America

American Society for Microbiology

American Association for the Advancement of Science

Departmental Service:

Microbiology Executive Committee
Chair, Microbiology Scholarship Committee
Undergraduate Affairs (Curriculum) Committee
Chair, Space Committee (1989-1997)

University Service:

Director, Genetics Program
Member, USDA National Needs Plant Biotechnology Group
Co-Director, OSU 2007 Planning Committee, Satellite Team 4
(Promotion of Scholarly Activity to Undergraduate and
Graduate Students)
Founding member, Executive Committee, Molecular & Cellular
Biology Program
Panel member for comprehensive review of Botany & Plant Pathology
Department
Review proposals for OSU Research Council & EHSC Pilot Projects
Program
Faculty Advisor for OSU Rifle Club (2000-present)
Public lectures to various citizen groups

Community Service:

In the Scientist-Educator Partnerships Program to assist public schools, I make classroom presentations, accompany field trips, assist teachers with curriculum improvements, and serve as an "e-mail pal", an "Ask-A-Scientist Oracle", and a host for the High School AP Biology Mentorship Program.

Keynote speaker at the 2000 American Cancer Society Relay for Life in Coos Bay.

No-fee notary public service

Director, High Power Rifle program, Albany Rifle & Pistol Club (1997-present)

Liaison to US Army Civilian Marksmanship Program

Teaching:**Intensive Molecular Biology Laboratory**

I developed, along with Dr. Kate Field, a lab manual and set up a new teaching facility in 1992. This course is very well received and applications for each section are about twice the 24 positions available. Contact hours for this two week course are equivalent to a full term of a 3 credit course. The course, which was designed for first year PhD students, also serves technicians, postdoctoral fellows, and faculty from OSU and other institutions worldwide. The manual that we wrote for this course was published by Academic Press in 1998 and is now in use at a number of universities.

Microbial Genetics

I share responsibility for this 4 credit graduate/senior undergraduate course with three other faculty.

Molecular Microbiology Laboratory

I have updated this writing-intensive undergraduate lab course to include commonly used molecular biology methods. One highly successful new experiment involved DNA isolation, PCR, and DNA sequence analysis of ribosomal RNA genes from bacteria isolated by the students. Academic Press will publish this book in 2002.

Other Teaching:

I present guest lectures each year in several graduate courses in the Horticulture, Botany/Plant Pathology, Biotechnology, and Molecular Biology programs.

Advising:**Graduate Students:**

Lucas Tilley	2002-	Genetics (MS)
Jodi Humann	2000-	Microbiology (PhD)
Laurie Bissonette	1999-01	Microbiology (PhD)
Jennifer Pitrak	1999-	Microbiology (PhD)
Orin Shanks	1997-	Genetics (PhD)
Hyewon Lee	1996-99	Microbiology (MS); technician, Pusan National Univ. Hospital
Chris Sundberg	1995-99	USDA National Needs Fellow; PhD student, Stanford
Cheryl Whistler	1994-00	Molecular Biology/USDA National Needs Fellow (PhD) (co-mentor with Dr. Joyce Loper)
Priscilla Dombek	1989-96	Biochemistry (PhD); postdoc, P. Cleary, Microbiology, Minnesota
Hui Han	1988-90	Genetics (MS); technician, Johns Hopkins
Agnes Miranda	1987-90	Microbiology (MS); homemaker
Kevin Brady	1984-89	Genetics (PhD); business
Joon Ji	1985-87	Genetics (MS); technician, Univ. of Washington
Ernest Peralta	1983-86	Molecular Biology (PhD); tenured Professor, Harvard (deceased)

Recent Undergraduate Students:

Rachel Hasson	2002	Biochemistry
Josh Cuperus	2001-	General Science
Sami Murakami	2001-02	Biochemistry; HHMI Fellow
Lucas Tilley	2001-	Microbiology
Julie Law	2000-01	Biochemistry (Honors); Howard Hughes Fellow; PhD student, Johns Hopkins
David Edwards	2000	Microbiology
Joyce Abille	2000	Microbiology
Sarah Andrews	1999-00	Microbiology (Honors); Howard Hughes Fellow; technician, Oregon Health Sciences University
Laurie Bissonette	1998-99	Microbiology (Honors)
Paul Eyerly	1998-99	Microbiology (Honors)
Thad Huston	1995-96	Independent Research
Kate Carroll	1995	Independent Research; PhD student, Stanford Univ.
Loc Trieu	1993-95	Bioresource Research; Outstanding Undergraduate Research Award from Minorities in Agriculture, Natural Resources and Related Sciences

Doug Sposito 1991-92 Independent Research

High School Students:

Bryant Park	2000-2001	Crescent Valley High School
Josh Cuperus	2000-2001	Crescent Valley High School
Jack Spies	1999-2000	Corvallis High School
Craig Hetherington	1998-99	Crescent Valley High School; semifinalist in the Intel High School Science Talent Search; currently at Harvard University.

Postdoctoral Fellows:

Claire Shurvinton	1989-92	Assistant Professor, Santa Rosa Junior College
Indira Rajagopal	1989-91	Instructor, Biochemistry, Oregon State Univ.
Tom Alton	1985-87	Professor, Biology, Western Illinois Univ.

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